

# **ELECTRO** **TABLE** **MOORE** MACHINERY CO.

656 STOCKTON AVENUE  
SAN JOSE 26, CALIFORNIA  
CYpress 7-4070

for high-speed, accurate indexing  
at lowest operating costs

complete, packaged unit  
low tooling costs  
built-in timer  
all-electric  
interchangeable tables  
simple operation



## **BLACK & WEBSTER, INC.**

SOLENOID-OPERATED PRODUCTION TOOLS

# ***ELECTROT⚡ABLE***

In many plants, production machinery is capable of producing work at higher rates of speed than those at which it is used. The principal drawback is the work-positioning operation; human hands cannot load rapidly, safely and accurately at the operating speeds of which the machine is capable.

The Black & Webster Electrotale is truly a "one-man production line". It positions work automatically, accurately and safely, and, with its built-in electronic timer, triggers off other tools to perform various operations.

The Electrotale is an all-electric packaged unit which can be plugged into any 115V or 230V AC, 60 cycle, single phase outlet, assuring lowest operating costs. The table is ready for operation as soon as tooling is completed. There are no complicated connections or piping. This feature makes it an extremely mobile unit.

The Electrotale can be equipped with an Electropunch, the operating head assembly of which mounts directly on the central column. This Black & Webster electric impact hammer stakes, rivets, marks or performs other operations automatically with the cycling of the table. Where applications require, the table can be used with two Electropunch heads, both mounted on the central column at a 90° angle to each other. Thus a riveting and a marking operation can be performed simultaneously. The table can also be used with drill presses, power screw drivers, presses, automatic

riveters, spinners, tapping machines and other accessory tools. Versatility like this makes it ideal for automation, especially when automatic feeds are installed.

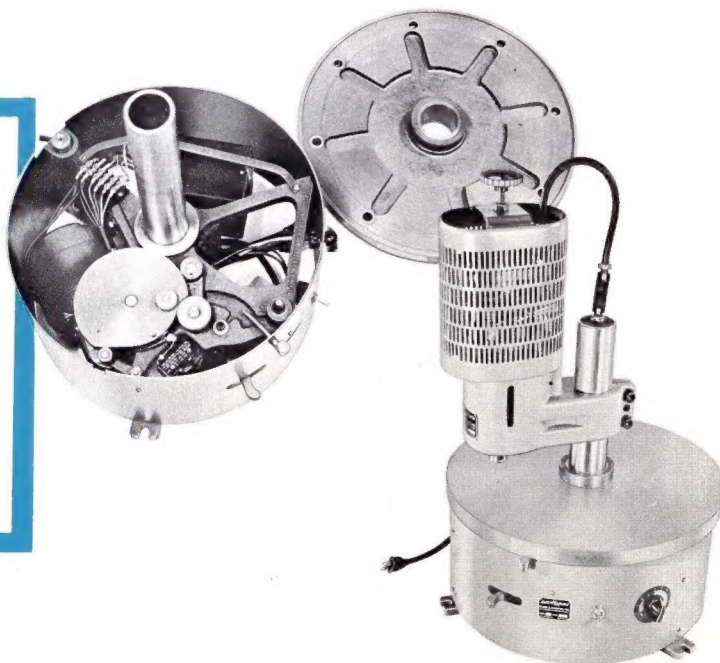
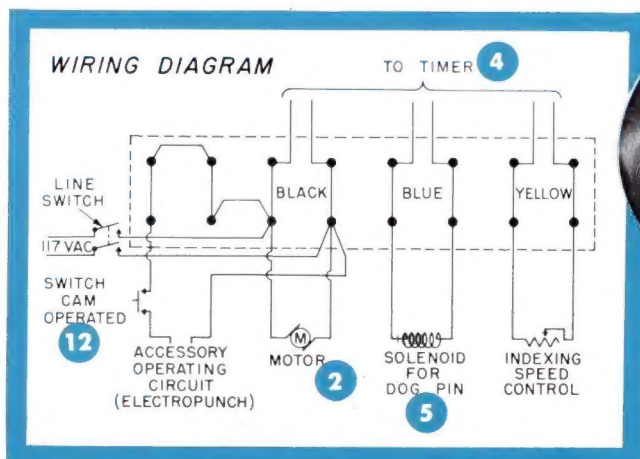
The central column on the Electrotale offers a convenient and economical mounting for both the Electropunch and other accessories, thus reducing tooling time and cost to a minimum. The table is removed simply by lifting it over the column — no nuts or screws to loosen. Tables are interchangeable so shifting from one job to another is a fast, simple matter.

The built-in automatic timer is available in either of two ranges, adjustable from 14 to 54 indices per minute or 6 to 24 indices per minute. The table can also be cycled by hand or foot switch.

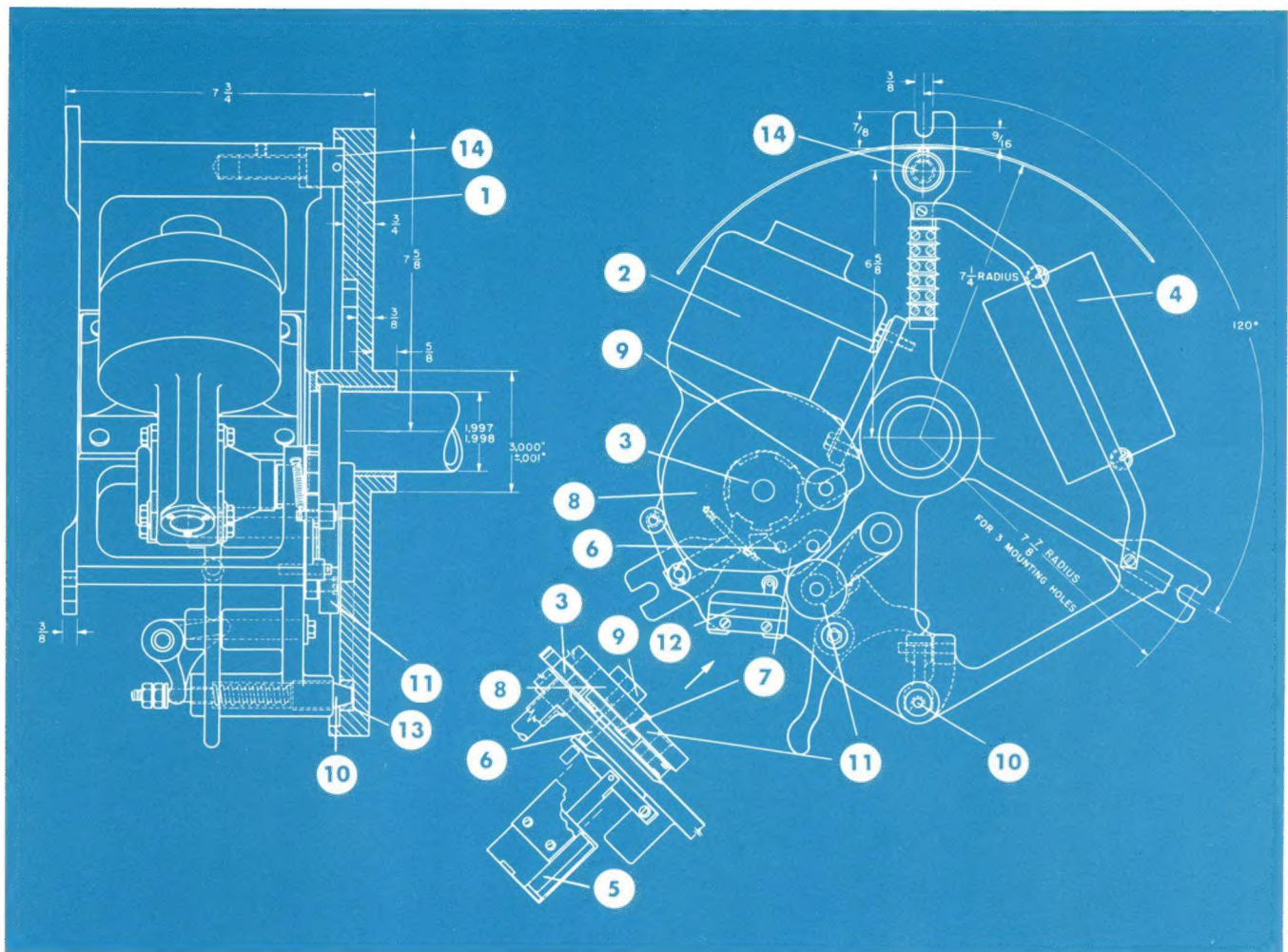
The standard Electrotale has eight stations, each of which will accommodate tool nests up to 3¾" in diameter. These tool nests should weigh not more than a few pounds each for maximum efficiency. Other tables with six or twelve stations are available on application. The rotation of the table is counter-clockwise; clockwise rotation is available at additional cost.

The table can be rotated by hand simply by pressing a handle which retracts the locking pin.

The Electrotale has a minimum number of moving parts; the principal ones are lubricated simultaneously through one oiler mounted on the side of the table.



— the latest development in automatic indexing —



## OPERATION

The main actuating power for the table **1** is a 1/20-H.P. gearhead motor **2** which runs continuously, rotating a splined clutch disk **3**. The electronic timer **4** is continuously adjustable through a variable resistor. It actuates a relay which energizes the solenoid **5**. This pulls the clutch dog pin **6**, allowing the clutch dog **7** to engage the splined clutch disk.

This engagement locks the indexing cam **8** to the motor shaft and makes one complete revolution — the pin immediately returns to the "up" position pulling the clutch dog out of engagement so that the indexing cam idles until re-engaged. A nylon roller **9** on the indexing cam meshes

with the Geneva slots in the table, advancing it one station.

The second function of the indexing cam is to withdraw the positioning and locking pin **10**. This is accomplished by the nylon roller **11** operating a series of levers.

The third function of the indexing cam is to operate momentarily a microswitch **12** after the positioning pin has locked the table in place. This microswitch operates the Electropunch head or any other tools used with the table. The cone-shaped positioning pin locks the table by entering a tapered, hardened bushing **13** on the underside of the table. An adjustable load support **14** is furnished to back up operating tools.

**ELECTROTABLE SPECIFICATIONS**

|                                                                                                   |          |                                                                                          |
|---------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------|
| Electrotable, Model LT — Counter-clockwise Rotation                                               |          | Stations — 8 (6 and 12 stations on special order)                                        |
| Electrotable, Model RT — Clockwise Rotation                                                       |          | Time for motion during one index .693 seconds                                            |
| Diameter of table                                                                                 | 15¼"     | Indexing accuracy (normal operation) ±.001                                               |
| Diameter of work circle with Electropunch head                                                    | 10"      | Speed — continuously adjustable between 14 indices per minute and 54 indices per minute. |
| Height of table above bench                                                                       | 8"       | (A timer that will provide 6 to 25 indices per minute is also available.)                |
| Shut height of Electropunch spindle above table, with 12" column (also available with 18" column) | 4"       | Electrical requirement: 115V or 230V AC, 60 cycle, single phase                          |
| Throat, Electropunch head                                                                         | 4"       |                                                                                          |
| Weight of unit less Electropunch head                                                             | 82½ lbs. |                                                                                          |

**ACCESSORY IMPACT CONTROL**

This Impact Control is a valuable accessory which can be used with all Black & Webster solenoid-operated tools.

With it, the impact of the tools can be adjusted from a few pounds up to their rated maximum simply by turning the dial.

The Impact Control consists of a variable transformer with graduated dial which controls the voltage in the solenoid, thus regulating the impact. It simplifies returning to a pre-determined impact when shifting from delicate jobs to heavy work and vice versa.

A convenient cord and socket are installed on the Electrotable for attaching this accessory. Please specify when ordering.

**BLACK & WEBSTER, INC.  
SOLENOID-OPERATED PRODUCTION TOOLS**

The basic Black & Webster tools are the Electropunch, Electrostroke and Electropress. These tools perform a wide variety of production operations — staking, riveting, marking, steel stamping and many other jobs. Their lightning-fast, controlled blows speed up many operations.

The Electropunch delivers fast, controlled impacts. The Electrostroke presses parts together before delivering a blow, assuring true alignment. The Electropress delivers impact and then applies pressure after the blow.

Black & Webster tools can attain rates as high as 10,000 pieces per hour with automatic switching, and rates up to 5,000 pieces per hour in hand-loading operations. They deliver impacts ranging from a few ounces up to 5 tons. Standard accessories provide added control of impact, speed and safety.

These tools are low-cost and extremely economical to use. Power consumption in some applications averages less than one kilowatt hour per forty-hour week under continuous operation at 60 blows per minute. They are ruggedly built, designed to give years of dependable, trouble-free service. All units are portable, and plug into any 115V, AC outlet.

Write for illustrated catalog for information on how to use Black & Webster all-electric impact tools in your plant.

**BLACK & WEBSTER, INC.****445 Watertown Street, Newton 58, Mass. - Bigelow 4-6370**